## LABORATORY ANALYTICAL RESULTS

## **METALS**

ANALYTICAL RESULTS

GTEL Client ID:

7094104115110

Login Number:

H6110437

Project ID (Number): 7094104115110

Project ID (Name): RFI UNIVERSITY OF MARYLAND

	O (Name): RFI UNIVERSITY OF MARYLAND			Date of Report: Dec Ut, 1996		
EPA 6010A	GTEL Sample Number	M6110437-02	M6110437-04	M6110437-05	M6110437-07	
Metals	Client ID	RP3-4	RP3-6	RP3-7	RP1-4	
Matrix: Solids	Date Sampled	11/20/96	11/20/96	11/20/96	11/20/96	
	Date Prepared	11/27/96	11/27/96	11/27/96	11/27/96	
	Date Analyzed	12/04/96	12/04/96	12/04/96	12/04/96	
	Adjustment Multiplier	1.00	1.00	1.00	1.00	
	Percent Solids	78.5	85.4	69.5	55.0	
	Reporting				$\overline{}$	
Analyte	Limit Unit	s Concentrat	ion: Dry Weight			
Barium	20 mg/	kg < 20	< 20	55	93	
Cadmium	0.50 mg/	kg < 0.50	< 0.50	< 0.50	< 0.51	
Chromium	1.0 mg/	kg 12	3.5	66	63	
Lead	7.0 mg/	kg < 7.0	< 7.0	25	31	
Silver	1.0 mg/	kg < 1.0 ·	< 1.0	< 1.0	< 1.0	
EPA 6010A	GTEL Sample Number	M6110437-08	M6110437-09	M6110437-10	M6110437-11	
EPA 6010A Metals	GTEL Sample Mumber Client ID	M6110437-08 POND 1 DUPLICATE	M6110437-09 RP1-5	M6110437-10 RP2-4	M6110437-11 RP2-5	
EPA 6010A Metals	GTEL Sample Number Client ID Date Sampled	M6110437-08 POND 1 DUPLICATE 11/20/96	M6110437-09 RP1-5 11/21/96	M6110437-10 RP2-4 11/21/96	M6110437-11 RP2-5 11/21/96	
EPA 6010A Metals	GTEL Sample Number Client ID Date Sampled Date Prepared	M6110437-08  POND 1 DUPLICATE 11/20/96 11/27/96	M6110437-09 RP1-5 11/21/96 11/27/96	M6110437-10 RP2-4 11/21/96 11/27/96	M6110437-11 RP2-5 11/21/96 11/27/96	
EPA 6010A Metals	GTEL Sample Number Client ID Date Sampled Date Prepared Date Analyzed	M6110437-08 POND 1 DUPLICATE 11/20/96 11/27/96 12/04/96	M6110437-09 RP1-5 11/21/96 11/27/96 12/04/96	M6110437-10 RP2-4 11/21/96 11/27/96 12/04/96	M6110437-11 RP2-5 11/21/96 11/27/96 12/04/96	
EPA 6010A Metals	GTEL Sample Number Client ID Date Sampled Date Prepared Date Analyzed Adjustment Multiplier	M6110437-08 POND 1 DUPLICATE 11/20/96 11/27/96 12/04/96	M6110437-09 RP1-5 11/21/96 11/27/96 12/04/96 1.00	M6110437-10 RP2-4 11/21/96 11/27/96 12/04/96 1.00	M6110437-11 RP2-5 11/21/96 11/27/96 12/04/96	
EPA 6010A Metals	GTEL Sample Number Client ID Date Sampled Date Prepared Date Analyzed	M6110437-08 POND 1 DUPLICATE 11/20/96 11/27/96 12/04/96	M6110437-09 RP1-5 11/21/96 11/27/96 12/04/96	M6110437-10 RP2-4 11/21/96 11/27/96 12/04/96	M6110437-11 RP2-5 11/21/96 11/27/96	
EPA 6010A Metals Matrix: Solids	GTEL Sample Number Client ID Date Sampled Date Prepared Date Analyzed Adjustment Multiplier Percent Solids	M6110437-08 POND 1 DUPLICATE 11/20/96 11/27/96 12/04/96 1,05 51.9	M6110437-09 RP1-5 11/21/96 11/27/96 12/04/96 1.00	M6110437-10 RP2-4 11/21/96 11/27/96 12/04/96 1.00	M6110437-11 RP2-5 11/21/96 11/27/96 12/04/96	
EPA 6010A Metals Matrix: Solids	GTEL Sample Number Client ID Date Sampled Date Prepared Date Analyzed Adjustment Multiplier Percent Solids Reporting Limit Unit	M6110437-08 POND 1 DUPLICATE 11/20/96 11/27/96 12/04/96 1,05 51.9	M6110437-09 RP1-5 11/21/96 11/27/96 12/04/96 1.00 62.4 tion: Dry Weight	M6110437-10 RP2-4 11/21/96 11/27/96 12/04/96 1.00 72.9	M6110437-11 RP2-5 11/21/96 11/27/96 12/04/96 1.00 80.2	
EPA 6010A Metals Matrix: Solids	GTEL Sample Number Client ID Date Sampled Date Prepared Date Analyzed Adjustment Multiplier Percent Solids Reporting Limit Unit	M6110437-08 POND 1 DUPLICATE 11/20/96 11/27/96 12/04/96 1.05 51.9  S Concentrat kg 95	M6110437-09 RP1-5 11/21/96 11/27/96 12/04/96 1.00 62.4 tion: Dry Weight	M6110437-10 RP2-4 11/21/96 11/27/96 12/04/96 1.00 72.9	M6110437-11 RP2-5 11/21/96 11/27/96 12/04/96 1.00 80.2	
EPA 6010A Metals Matrix: Solids  Analyte Sarium Cadmium	GTEL Sample Number Client ID Date Sampled Date Prepared Date Analyzed Adjustment Multiplier Percent Solids Reporting Limit Unit	M6110437-08 POND 1 DUPLICATE 11/20/96 11/27/96 12/04/96 1,05 51.9  S Concentrat kg 95 kg < 0.53	M6110437-09  RP1-5 11/21/96 11/27/96 12/04/96 1.00 62.4	M6110437-10  RP2-4  11/21/96  11/27/96  12/04/96  1.00  72.9	M6110437-11 RP2-5 11/21/96 11/27/96 12/04/96 1.00 80.2	
EPA 6010A Metals Matrix: Solids  Analyte Barium Cadmium	GTEL Sample Number Client ID Date Sampled Date Prepared Date Analyzed Adjustment Multiplier Percent Solids Reporting Limit Unit 20 mg/ 0.50 mg/	M6110437-08 POND 1 DUPLICATE 11/20/96 11/27/96 12/04/96 1_05 51.9  S Concentrat kg 95 kg < 0.53 kg 59	M6110437-09  RP1-5 11/21/96 11/27/96 12/04/96 1.00 62.4  cion: Dry Weight  83 < 0.50	M6110437-10  RP2-4  11/21/96  11/27/96  12/04/96  1.00  72.9	M6110437-11  RP2-5  11/21/96  11/27/96  12/04/96  1.00  80.2	

#### Narrative Summary

Login Number:

M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

Date of Report: Dec 06, 1996

#### Footnotes and Comments

#### Symbol keys (may appear beside values)

- \* Indicates the analyte has been qualified in the narrative section of the report.
- d Indicates the analyte was reported from a dilution other than that indicated on the report page.
- B Organic Analyses Indicates the analyte is found in the associated blank as well as in the sample.
- B Inorganic Analyses Indicates an estimated value below the EPA Contract Required Detection Limit.
- G Indicates an estimated surrogate recovery due to dilutions.
- J Indicates an estimated value below the reporting limit.
- U Indicates the analyte was analyzed for but not detected.
- NA Matrix Spike Results Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
- NA Matrix Spike Duplicate RPD Results Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
- NA Serial Dilution RPD Results Not Applicable, since the Sample Conc. was less than

five times the CLP Contract Required Detection Limit.

#### Inorganics

#### Method: EPA 6010A

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 2.

Digestion is Method Specific.

Login Number:

Silver

7094104115110

M6110437

Project ID (Number): 7094104115110

Project ID (Name): RFI UNIVERSITY OF MARYLAND

1.0

ma/ka

ANALYTICAL RESULTS

Date of Report: Dec 06, 1996 \*\* EPA 6010A GTEL Sample Number M6110437-03 Metals Client ID RP3-5 Matrix: Solids Date Sampled 11/20/96 Date Prepared 11/27/96 Date Analyzed 12/04/96 Adjustment Multiplier 1.00 Percent Solids 73.5 Reporting Concentration: Dry Weight Analyte Limit Units Barium 20. 27 mg/kg Cadmium 0.50 < 0.50 mg/kg 1.0 mg/kg 18 7.0 Lead 8.9 mg/kg

< 1.0

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#### Narrative Summary

Login Number:

M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

Date of Report: Dec 05, 1996

#### Footnotes and Comments

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- · Indicates the analyte has been qualified in the narrative section of the report.
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- NA Matrix Spike Duplicate RPD Results Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
- NA Serial Dilution RPD Results Not Applicable, since the Sample Conc. was less than

five times the CLP Contract Required Detection Limit.

#### Inorganics.

#### Method: EPA 7060

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including

promulgated Update 2.

Digestion is Method Specific.

M6110437-03 (ARSENIC): Non-Conformance Summary.

#### Matrix Spike:

MS11043703 (ARSENIC): Non-Conformance Summary.

#### Method: EPA 7740

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including

promulgated Update 2.

Digestion is Method Specific.

ANALYTICAL RESULTS

GTEL Client ID: Login Number:

M6110437

7094104115110

Project ID (Number): 7094104115110

Date of Report: Dec 05, 1996 Project ID (Name): RFI UNIVERSITY OF MARYLAND

M6110437-05 M6110437-04 M6110437-03 EPA 7060 GTEL Sample Number M6110437-02 RP3-4 RP3-5 RP3-6 RP3-7 Metals Client ID 11/20/96 11/20/96 11/20/96 11/20/96 Matrix: Solids Date Sampled 11/27/96 11/27/96 Date Prepared 11/27/96 11/27/96 12/02/96 Date Analyzed 12/02/96 12/03/96 12/02/96 1.00 1.00 1.50 1.00 Adjustment Multiplier 85.4 Percent Solids 78.5 73.5 69.5 Reporting

Limit Units Concentration: Dry Weight 3,2 3.5 < 1.0 1.0 Arsenic mg/kg

EPA 7060 M6110437-09 M6110437-10 M6110437-08 GTEL Sample Number M6110437-07 Metals Client ID RP1-4 POND 1 DUPLICATE RP1-5 RP2-4 11/21/96 Matrix: Solids 11/20/96 11/20/96 11/21/96 Date Sampled 11/27/96 11/27/96 11/27/96 Date Prepared 11/27/96 12/02/96 12/02/96 12/02/96 12/02/96 Date Analyzed 1.00 1.00 1.10 Adjustment Multiplier 1.00 Percent Solids 55.0 51.9 62.4 72.9 Reporting

Limit Concentration: Dry Weight Units 1.0 mg/kg 8:3 7.1 4:9 4:7

EPA 7060 M6110437-11 GTEL Sample Number RP2-5 Client ID 11/21/96 Matrix: Solids Date Sampled Date Prepared 11/27/96 12/02/96 Date Analyzed 1.00 Adjustment Multiplier Percent Solids 80.2

Reporting Analyte Limit Units Concentration: Dry Weight Arsenic 1.0 mq/kq

EPA 7740 M6110437-02 M6110437-03 M6110437-04 M6110437-05 GTEL Sample Number RP3-4 RP3-5 RP3-6 RP3-7 Client ID Matrix: Solids 11/20/96 11/20/96 11/20/96 11/20/96 Date Sampled 11/27/96 Date Prepared 11/27/96 11/27/96 11/27/96 12/03/96 12/03/96 Date Analyzed 12/03/96 12/03/96 1.00 1.00 1.00 1.00 Adjustment Multiplier Percent Solids 78.5 73.5 85.4 69.5

Reporting Analyte Limit Units Concentration: Dry Weight mg/kg <1.0 <1.0 <1.0 <1.0 <1.0 Selenium

GTEL Client ID: 7094104115110

Login Number: M6110437

Project ID (Number): 7094104115110

Project ID (Name): RFI UNIVERSITY OF MARYLAND

EPA 7740

Metals Client

Matrix: Solids Date Sample Num

Date Preparate Analyte

Analyte Limit

EPA 7740

GTEL Sample Num

Adjustment Multipi

Reporting

Analyte Limit

Selenium 1.0

GTEL Sample Num

Client

Clie

ANALYTICAL RESULTS

INIVERSITY OF MARYLAND Date of Report: Dec 05, 1996

EPA 7740	GTEL Sample Number	M6110437-07	M6110437-08	M6110437-09	M6110437-10
Metals	Client ID	RP1-4	POND 1 DUPLICATE	RP1-5	RP2-4
Matrix: Solids	Date Sampled	11/20/96	11/20/96	11/21/96	11/21/96
•	Date Prepared	11/27/96	11/27/96	11/27/96	11/27/96
	Date Analyzed	12/03/96	12/03/96	12/03/96	12/03/96
	Adjustment Multiplier	1.00	1.10	1.00	1.00
	Percent Solids	55.0	51.9	62.4	72.9
	Reporting				
Smalues	Timin Maine	Concent	estion. Dry Waight		

Selenium 1.0 mg/kg < 1.0 < 1.1 < 1.0 < 1.0	Analyte	Limit	Units	Concentration:	Dry	Weight
	Selenium	1.0	mg/kg <	1.0	<	1.1 < 1.0 < 1.0

EPA 7740	GTEL Sample Number	M6110437-11	
Metals	Client ID	RP2-5	
Matrix: Solids	Date Sampled	11/21/96	
	Date Prepared	11/27/96	
	Date Analyzed	12/03/96	
	Adjustment Multiplier	1.00	
	Percent Solids	80.2	 
	Reporting		

	Percent	Solids	80.2
	Reporting		
Analyte	Limit	Units	Concentration: Dry Weight
Selenium	1.0	ma/ka	g <1.0

#### Marrative Summary

Login Number:

M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

Date of Report: Dec 11, 1996

#### Footnotes and Comments

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- NA Matrix Spike Duplicate RPD Results Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
- NA Duplicate Sample Results Not Applicable, since the Sample Conc. was less than five times the Detection Limit.
- NA Serial Dilution RPD Results Not Applicable, since the Sample Conc. was less than

five times the CLP Contract Required Detection Limit.

#### Inorganics

#### Method: EPA 7471

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 2. Analyte list may be modified to include additional compounds.

GTEL Client ID: Login Number:

7094104115110

H6110437.

Project ID (Number): 7094104115110

ANALYTICAL RESULTS

Date of Report: Dec 11, 1996 Project ID (Name): RFI UNIVERSITY OF MARYLAND M6110437-05 M6110437-04 M6110437-02 H6110437-03 EPA 7471 GTEL Sample Number RP3-6 RP3-7 RP3-5 RP3-4 Metals Client ID 11/20/96 11/20/96 11/20/96 Matrix: Solids Date Sampled 11/20/96 12/09/96 12/09/96 Date Prepared 12/09/96 12/09/96 12/10/96 12/10/96 12/10/96 12/10/96 Date Analyzed 1.00 1.00 1.00 Adjustment Multiplier 1.00 78.5 73.5 85.4 69.5 Percent Solids Reporting Limit Units Concentration: Dry Weight Analyte < 0.25 < 0.25 < 0.25 < 0.25 0.25 mg/kg Mercury M6110437-10 EPA 7471 GTEL Sample Number M6110437-07 M6110437-08 M6110437-09 Client ID POND 1 DUPLICATE RP1-5 RP2-4 RP1-4 Metals 11/21/96 11/21/96 11/20/96 Matrix: Solids Date Sampled 11/20/96 12/09/96 12/09/96 12/09/96 12/09/96 Date Prepared 12/10/96 12/10/96 12/10/96 Date Analyzed 12/10/96 1.00 1.00 Adjustment Multiplier 1.00 1.00 62.4 72.9 Percent Solids 55.0 51.9 Reporting Limit Units Concentration: Dry Weight Analyte mg/kg < 0.25 < 0.25 < 0.25 0.25 Mercury EPA 7471 GTEL Sample Number M6110437-11 RP2-5 Metals Client ID 11/21/96 Matrix: Solids Date Sampled 12/09/96 Date Prepared Date Analyzed 12/10/96 Adjustment Multiplier 1.00 Percent Solids 80.2

Reporting Concentration: Dry Weight Limit Unita Analyte 0.25 < 0.25



**Northeast Region** Meadowbrook Industrial Park Milford, NH 03055 (603) 672-4835 (603) 673-8105 (FAX)

January 17, 1997

Randy D. Deardorff

Buchart-Horn, Inc. 445 W. Philadelphia St. York, PA 17405

RE: NEI/GTEL Client ID:

Login Number:

7094104115110

M7010176

Project ID (number):

7094104115110

Project ID (name):

RFI UNIVERSITY OF MARYLAND

Dear Randy D. Deardorff:

Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 11/25/96 under Chain-of-Custody Number(s) 64872.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This Analytical report shall not be reproduced except in full.

GTEL is certified by the State of Maryland under certification #164.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

NEI/GTEL Environmental Laboratories, Inc.

Susan C. Uhler

Laboratory Director

GTEL Client ID: 7094104115110 Login Number: M7010176

Project ID (number): 7094104115110
Project ID (name): RFI UNVERSITY OF MARYLAND

### CONFORMANCE/NONCONFORMANCE SUMMARY

(X = Requirements Met \* = See Comments NA = Not Applicable)

#	Conformance Item	VOA GC/MS	VOA GC	SV GC/MS	SV GC	METALS	WET
1	GC/MS Tune	_	. NA	_	NA	NA	NA
2	Initial Calibration				-	х	_
3	Continuing Calibration	-	_	-	-	х	_
4	Surrogate Recovery	_		_	-	NA	NA
5	Holding Time	_	_	_	-	х	-
6	Method Accuracy		-	_	_	Х	_
7	Method Precision	-	-	_	-	Х	-
8	Blank	-		-	-	Х	-

9 Comments: - GTEL Client ID: 7094104115110 Login Number: M7010176 ANALYTICAL RESULTS

Project ID (Number): 7094104115110
Project ID (Name): RFI UNIVERSITY OF MARYLAND

Date of Report: Jan 17, 1997

EPA 7060	GTEL Sample Number	M7010176-01	
Metals	Client ID	FIELD BLANK	
Matrix: Aqueous	Date Sampled	11/20/96	
	· Date Prepared	01/14/97	
	Date Analyzed	01/15/97	
	Adjustment Multiplier	1.00	
	Reporting		
_Analyte	Limit Units		
Arsenic	10 ug/L	10 U	
EPA 7421	GTEL Sample Number	M7010176-01	
Metals	Client ID	FIELD BLANK	
Matrix: Aqueous	Date Sampled	11/20/96	
neor me masses	Date Prepared	01/14/97	
	Date Analyzed	01/15/97	
	Adjustment Multiplier	1.00	·
	Reporting		
Analyte	Limit Units		
Lead	4,0 ug/L	4,0 U	
	•		
EPA 7740	GTEL Sample Number	M7010176-01	
Metals	Client ID	FIELD BLANK	
Matrix: Aqueous	Date Sampled	11/20/96	
	Date Prepared	01/14/97	
	Date Analyzed	01/16/97	
	Adjustment Multiplier	1.00	
	Reporting		
Analyte	Limit Units		
Selenium	10 ug/L	10 U	

GTEL Milford, NH M7010176 16:36

#### Narrative Summary

M7010176 Login Number: Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

Date of Report: Jan 16, 1997

#### Footnotes and Comments

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- G Indicates an estimated surrogate recovery due to dilutions.
- J Indicates an estimated value below the reporting limit.
- U Indicates the analyte was analyzed for but not detected.
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- NA Matrix Spike Duplicate RPD Results Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
- NA Duplicate Sample Results Not Applicable, since the Sample Conc. was less than five times the Detection Limit.
- NA Serial Dilution RPD Results Not Applicable, since the Sample Conc. was less than five times the CLP Contract Required Detection Limit.

#### Inorganics

Method: EPA 6010A

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 2. Analyte list may be modified to include additional compounds. Digestion is Method Specific.

7094104115110

ANALYTICAL RESULTS

Login Number:

M7010176

Project ID (Number): 7094104115110

Project ID (Name): RFI UNIVERSITY OF MARYLAND

Date of Report: Jan 16, 1997

EPA 6010A	GTEL Sample Number	M7010176-01	
Metals	Client ID	FIELD BLANK	
Matrix: Aqueous	Date Sampled	11/20/96	
	Date Prepared	01/14/97	
	Date Analyzed	01/15/97	
	Adjustment Multiplier	1.00	
	Reporting		
Analyte	<u>Limit Units</u>		
Barium	200 ug/L	200 U	
Cadmium	5.0 <b>ug/</b> L	5.0 U	
Chromium	10 ug/L	10 U	
Silver	10 ug/L	10 U	

### PESTICIDES/PCB'S

GTEL Client ID:

7094104115110

Login Number:

M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

Method: EPA 8080

Matrix: Aqueous

GTEL Sample Number	M6110437-01	••	••	••
Client ID	FIELD BLANK	••	••	••
Date Sampled	11/20/96	••	••	••
Date Prepared	11/25/96			•
Date Analyzed	11/26/96	••	••	••
Dilution Factor	1.00		••	••

	Reporting					
Analyte	Limit	Units	Concentra	tion:		
PCB - Aroclor 1221	0.50	ug/L	0.50 U			
PCB - Arocior 1232	0.50	ug/L	0.50 U		••	••
PCB - ArocTor 1242 (1016)	0,50	ug/L	0,50 U			••
PCB - Aroclor 1248	0.50	ug/L	0.50 U		••	••
PCB - Aroclor 1254	0.50	ug/L	0.50 U			
PCB - Arocior 1260	0.50	ug/L	0.50 U			
alpha-BHC	0.05	ug/L	0.05 U		<u></u>	
gamma-BHC(Lindane)	0.05	ug/L	0.05 U			••
beta-BHC	0.05	ug/L	0.05 U			
Heptachlor	0.05	ug/L	0.05 U	••		
delta-BHC	0.05	ug/L	0.05 U			
Aldrin	0.05	ug/L	0.05 U			
Heptachlor epoxide	0.05	ug/L	0.05 U			
Endosulfan I	0.05	ug/L	0.05 U		••	
4,4'-DOE	0.05	ug/L	0.05 U			
Dieldrin	0.05	ug/L	0.05 U			••
Endrin	0.1	ug/L	0.1 U			
4,4°-DOD	0.1	ug/L	0.1 U	••	••	••
Endosulfan II	0.05	ug/L	0.05 U		4	
4.4'-DDT	0.1	ug/L	0.1 U	••		••
Endrin aldehyde	0.1	ug/L	0.1 U			
Endosulfan sulfate	0.1	ug/L	0.1 U	••	••	••
Methoxychlor	0.5	ug/L	0.5 U		<del></del>	
Chlordane	0.1	ug/L	0.1 U		••	••
Toxaphene	2.0	ug/L	2.0 U			

#### Notes:

### Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including promulgated Update 2. Analyte list may be modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

#### M6110437-01:

The dilution factor for pesticides = 1.00: date analyzed was 11/27/96.

GTEL Milford, NH

M6110437

GTEL Client ID: Login Number:

7094104115110

Project ID (number): 7094104115110

M6110437

Project ID (name):

RFI UNIVERSITY OF MARYLAND

Method: EPA 8080

Matrix: Solids

 GTEL Sample Number	M6110437-02	M6110437-03	M6110437-04	M6110437-05
Client ID	RP3-4	RP3-5	RP3-6	RP3-7
Date Sampled	11/20/96	11/20/96	11/20/96	11/20/96
Date Prepared	12/04/96	12/04/96	12/04/96	12/04/96
Date Analyzed	12/10/96	12/11/96	12/11/96	12/11/96
 Dilution Factor	1.00	5.00	1.00	10.0

	Reporting					-
Analyte	Limit	Units	Concer	ntration:Dry W	eight	
alpha-BHC	1.7	ug/kg	1.7 U	8.5 U	1.7 U	17. U
gamma-BHC(Lindane)	1.7	ug/kg	1.7 U	8.5 U	1.7 U	17. U
beta-BHC	1.7	ug/kg	1.7 U	8,5 U	1.7 U	17. U
Heptachlor	1.7	ug/kg	1.7 U	8.5 U	1.7 U	17. U
delta-BHC	1.7	ug/kg	1.7 U	8.5 U	1.7 U	17. U
Aldrin	1.7	ug/kg	1.7 U	8.5 U	1.7 U	17. U
Heptachlor epoxide	1.7	ug/kg	1.7 U	8.5 U	1.7 U	17. U
Endosulfan I	1.7	ug/kg	1.7 U	8.5 U	1.7 U	17. U
4,4'-DDE	1.7	ug/kg	1.7 บ	8.5 U	1.7 U	17. U
Dieldrin	1.7	ug/kg	1.7 U	8.5 U	1.7 U	17. U
Endrin	3.3	ug/kg	3.3 U	16. U	3.3 U	33. U
4,4°-DDD	3.3	ug/kg	3.3 U	16. U	3.3 U	33. U
Endosulfan II	1.7	ug/kg	1.7 U	8.5 U	1.7 U	17. U
4.4'-DOT	3.3	ug/kg	3.3 U	16. U	3.3 U	33. U
Endrin aldehyde	3.3	ug/kg	3.3 U	16. U	3.3 U	33. U
Endosulfan sulfate	3.3	ug/kg	3.3 U	16. U	3.3 U	33. U
Methoxych Tor	17.	ug/kg	17. U	85. U	17. U	170 U
Chlordane	3.3	ug/kg	3.3 U	16. U	3.3 U	33. U
Toxaphene	67.	ug/kg	67. U	340 U	67. U	670 U
Percent Solids	••	X	78.5	73.5	85.4	69.5

#### Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SM-846. Third Edition including promulgated Update-2. Analyte list may be modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

#### M6110437-03:

Sample diluted due to non-target interference.

M6110437-05:

Sample diluted due to non-target interference.

GTEL Milford, NH M6110437

GTEL Client ID: Login Number:

7094104115110

Project ID (number): 7094104115110

M6110437

Project ID (name): RFI UNIVERSITY OF MARYLAND

Method: EPA 8080 Matrix: Solids

:: 1

GTEL Sample Number	M6110437-07	M6110437-08	M6110437-09	M6110437-10
Client ID	· RP1-4	POND 1 DUPLICATE	RP1-5	RP2-4
Date Sampled	11/20/96	11/20/96	11/21/96	11/21/96
Date Prepared	12/04/96	12/04/96	12/04/96	12/04/96
Date Analyzed	12/11/96	12/11/96	12/11/96	12/11/96
Dilution Factor	10.0	25.0	25.0	25.0

	Reporting					
Analyte	Limit	Units	Conc	entration:Dry W	eight	
alpha-BHC	1.7	ug/kg	17. U	42. U	42. U	42. U
garma-BHC(Lindane)	1.7	ug/kg	17. U	42. U	42. U	42. U
beta-BHC	1.7	ug/kg	17. U	42. U	42. U	42. U
Heptachlor	1.7	ug/kg	17. U	42. U	42. U	42. U
delta-BHC	1.7	ug/kg	17. U	42. U	42. U	42. U
Aldrin	1.7	ug/kg	17. U	42. U	42. U	42. U
Heptachlor epoxide	1.7	ug/kg	17. U	42. U	42. U	42. U
Endosulfan I	1.7	ug/kg	17. U	42. U	42. U	42. U
4,4°-DDE	1.7	ug/kg	17. U	42. U	42. U	42. U
Dieldrin	1.7	ug/kg	17. U	42. U	42. U	42. U
Endrin	3.3	ug/kg	33. U	82. U	. 82. U	82. U
4,41-000	3.3	ug/kg	33. U	82. U	82. U	82. U
Endosulfan II	1.7	ug/kg	17. U	42. U	42. U	42. U
4,4'-DDT	3.3	ug/kg	33. U	82. U	82. U	82. U
Endrin aldehyde	3.3	ug/kg	33. U	82. U	82. U	82. U
Endosulfan sulfate	3.3	ug/kg	33. U	82. U	82. U	82. U
Methoxychlor	17.	ug/kg	170 U	420 U	420 U	420 U
Chlordane	3.3	ug/kg	-33. U	,82. U	82. U	82. U
Toxaphene	67.	ug/kg	670 U	1700 U	1700 U	1700 U
Percent Solids		*	55.1	51.9	62.4	72.9

#### Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SN-846. Third Edition including promulgated Update-2. Analyte list may be modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

#### M6110437-09:

Sample diluted due to non-target interference.

M6110437-10:

Sample diluted due to non-target interference.

GTEL Milford, NH M6110437

GTEL Client ID:

7094104115110

Login Number:

M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

Method: EPA 8080

Matrix: Solids

 GTEL Sample Number	M6110437-07	M6110437-08	M6110437-09	M6110437-10
Client ID		OND 1 DUPLICATE	RP1-5	RP2-4
Date Sampled	11/20/96	11/20/96	11/21/96	11/21/96
Date Prepared	12/04/96	12/04/96	12/04/96	12/04/96
Date Analyzed	12/11/96	12/11/96	12/11/96	12/11/96
Dilution Factor	1.00	1.00	1.00	1.00

	Reporting		
Analyte	Limit U	<b>Jnits</b>	Concentration:Dry Weight
PCB - Aroclor 1221	33. t	ıg/kg	33. U 33. U 33. U 33. U
PCB - Aroclor 1232	<b>33</b> . ι	ıg/kg	33. U 33. U 33. U 33. U
PCB - Aroclor 1242 (1016)	33. ı	ıg/kg	33, U 33, U 33, U 33, U
PCB - Aroclor 1248	<b>33</b> . ι	ıg/kg	33. U 33. U 33. U 33. U
PCB - Aroclor 1254	33. u	ıg/kg	33. U 33. U 33. U 33. U
PCB - Aroclor 1260	33. ı	ıg/kg	84. 38. 68. 190
Percent Solids		Ĭ.	55.1 51.9 62.4 72.9

#### Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

#### EPA 8080:

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SM-846. Third Edition including promulgated Update 2. Analyte list may be modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

GTEL Milford, NH M6110437

GTEL Client ID:

7094104115110

Login Number:

M6110437

Project ID (number): 7094104115110 Project ID (name):

RFI UNIVERSITY OF MARYLAND

Method: EPA 8080

Matrix: Solids

	GTEL Sample Number	M6110437-11	••	••	••
	Client ID	RP2-5	••	••	. ••
•	Date Sampled	11/21/96	••	••	••
	Date Prepared	12/04/96			
	Date Analyzed	12/11/96	••	••	••
	Dilution Factor	1.00	••	••	••

	Reporting		
Analyte	Limit	Units	Concentration:Dry Weight
alpha-BHC	1.7	ug/kg	1.7 U
gamma-BHC(Lindane)	1.7	ug/kg	1.7 U
beta-BHC	1.7	ug/kg	1.7 U
Heptachlor	1.7	ug/kg	1.7 U
delta-BHC	1.7	ug/kg	1.7 U
Aldrin	1.7	ug/kg	1.7 U
Heptachlor epoxide	1.7	ug/kg	1.7 U
Endosulfan I	1.7	ug/kg	1.7 U
4,4'-DOE	1.7	ug/kg	1.7 U
Dieldrin	1.7	ug/kg	1.7 U
Endrin	3.3	ug/kg	3.3 U
4.4°-DDD	3.3	ug/kg	3.3 U
Endosulfan II	1.7	ug/kg	1.7 U
4,4'-DDT	3.3	ug/kg	3.3 U
Endrin aldehyde	3.3	ug/kg	3.3 U
Endosulfan sulfate	3.3	ug/kg	3.3 U
Methoxych Tor	17.	ug/kg	17. U
Chlordane	3.3	ug/kg	3.3 U
Toxaphene	67.	ug/kg	67. U
Percent Solids	••	X	80.2

#### Notes:

#### Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SN-846. Third Edition including promulgated Update 2. Analyte list may be modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

GTEL Milford, NH M6110437

GTEL Client ID: Login Number:

7094104115110

M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

Method: EPA 8080

Matrix: Solids

	GTEL Sample Number	M6110437-11	••	••	••
	Client ID	RP2-5	••	••	••
•	Date Sampled	11/21/96	••	••	••
	Date Prepared	12/04/96			
	Date Analyzed	12/11/96	••	••	
	Dilution Factor	1.00	••	••	••

	Reporting		
Analyte	Limit	Units	Concentration:Dry Weight
PCB - Aroclar 1221	33.	ug/kg	33. U
PCB - Aroclor 1232	33.	ug/kg	33. U
PCB - Aroclor 1242 (1016)	33.	ug/kg	33. U
PCB - Aroclor 1248	33.	ug/kg	33. U
PCB - Aroclor 1254	33.	ug/kg	33. U
PCB - Aroclor 1260	33.	ug/kg	33. U
Percent Solids		<u> </u>	80.2

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

#### EPA 8080:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SM-846, Third Edition including promulgated Update 2. Analyte list may be modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected at or above the reporting limit indicated.

### **VOLATILES**

M6110437-10

11/21/96

RP2-4

# ANALYTICAL RESULTS Volatile Organics

M6110437-07

11/20/96

M6110437-08

11/20/96

RP1-4 POND 1 DUPLICATE

NEI/GTEL Client ID: 7094104115110 Login Number: M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

NEI/GTEL Sample Number

Client ID

Date Sampled

Method: EPA 8260 Matrix: Low Soil

RP1-5

M6110437-09

11/21/96

11deA		Date A Dilution	nalyzed Factor	12/03/96 1.00	12/04/96 1.00	12/04/96 1.00	12/04/96 1.00
- 100		Reporting					
	Analyte	Limit	Units	Cond	centration:Dry We	eight .	
20 <b>89</b>	Chloromethane	10.	ug/kg	10. U	10. U	10. U *	10. U
· aigs	Bromomethane	10.	ug/kg	10. U	10. U	10. U	10. U
. vide	Vinyl chloride	10.	ug/kg	10. U	10. U	10. U	10. U
:199 <b>6</b>	Chloroethane	10.	ug/kg	10. U	10. U	10. U	10. U
	Methylene chloride	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
490	Acetone	20.	ug/kg	59. B	53. B	62. B	52. B
	Carbon disulfide	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
-,00%	1,1-Dichloroethene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
<b>149</b>	1.1-Dichloroethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
	1,2-Dichloroethene (total)	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1984	Chloroform	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
- 249	1,2-Dichloroethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
- Ano	2-Butanone	20.	ug/kg	20. U	20. U	20. U	20. U
· 590	1,1,1-Trichloroethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
-	Carbon tetrachloride	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
NO.	Bromodichloromethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U 🗼	5.0 U
	1,2-Dichloropropane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
<b>199</b>	cis-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
0986	Trichloroethene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
	Dibromochloromethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
HA	1,1,2-Trichloroethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
	Benzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
win jiya	trans-1,3-Dichloropropene	5.0	ug/kg	5.0 U	5.0 U	5.0 U .	5.0 U
15.54 <b>9</b>	Bromoform	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
	4-Methy1-2-pentanone	20.	ug/kg	20. U	20. U	20. U	20. U
Ayrı	2-Hexanone	20.	ug/kg	20. U	20. U	20. U	20. U
	Tetrachloroethene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1499	1,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
i,eif	Toluene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
	Chlorobenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
999	Ethylbenzene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
+10	Styrene	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
	Xylenes (total)	5.0	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U
1996	Percent Solids		<u> </u>	55.1	51.9	62.4	72.9
	Notes:						

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

GTEL Milford, NH

M6110437

Reissued 01/15/97 D

NEI/GTEL Client ID: 7094104115110

Login Number: Project ID (number): 7094104115110

M6110437

Project ID (name):

RFI UNIVERSITY OF MARYLAND

Method: EPA 8260

Matrix: Low Soil

NEI/GTEL Sample Number	M6110437-07	M6110437-08	M6110437-09	M6110437-10
Client ID	· RP1-4	POND 1 DUPLICATE	RP1-5	RP2-4
Date Sampled	11/20/96	11/20/96	11/21/96	11/21/96
Date Analyzed	12/03/96	12/04/96	12/04/96	12/04/96
Dilution Factor	1.00	1.00	1.00	1.00

Repo	r	ti	ing

Concentration: Dry Weight Analyte Limit Units

Notes: (continued)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list may be modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected.

"J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination; The data user is warned to take appropriate action.

NEI/GTEL Client ID: 7094104115110 Login Number: M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

Method: EPA 8260 Matrix: Low Soil

NEI/GTEL Sample Number	M6110437-11	••	••	••	
Client ID	RP2-5	••	••	•••	
Date Sampled	11/21/96	••			

Date Sampled 11/21/96 -- -- -- -- Dilution Factor 1.00 -- -- --

49ay		Reporting					
	Analyte	Limit	Units	Conc	entration:Dry	Weight	
- C	hloromethane	10.	ug/kg	10. U	<del></del>		
В	romomethane	10.	ug/kg	10. U			
A.	inyl chloride	10.	ug/kg	10. U			
C	hloroethane	10.	ug/kg	10. U			
M	ethylene chloride	5.0	ug/kg	5.0 U			
*** A	cetone	20.	ug/kg	32. B			
C	arbon disulfide	5.0	ug/kg	5.0 U			•
1	,1-Dichloroethene	5.0	ug/kg	5.0 U			
_ 1	,1-Dichloroethane	5.0	ug/kg	5.0 U		<b>+</b> +	
1	,2-Dichloroethene (total)	5.0	ug/kg	5.0 U			
CI	hloroform	5.0	ug/kg	5.0 U			
1	,2-Dichloroethane	5.0	ug/kg	5.0 U			
2	-Butanone	20.	ug/kg	20. U		-+	
1	.1.1-Trichloroethane	5.0	ug/kg	5.0 U			•
<b>~</b> C	arbon tetrachloride	5.0	ug/kg	5.0 U	<del></del>		**
₩ B	romodichloromethane	5.0	ug/kg	5.0 U			
1	,2-Dichloropropane	5.0	ug/kg	5.0 U			
C	is-1,3-Dichloropropene	5.0	ug/kg	5.0 U			
. T	richloroethene	5.0	ug/kg	5.0 U		**	
D	ibromochloromethane	5.0	ug/kg	5.0 U			
. 1	.1.2-Trichloroethane	5.0	ug/kg	5.0 U			
В	enzene	5.0	ug/kg	5.0 U			
- t	rans-1,3-Dichloropropene	5.0	ug/kg	5.0 U			
В	romoform	5.0	ug/kg	5.0 U			
. 4	-Methy1-2-pentanone	20.	ug/kg	20. U		**	
2	-Hexanone	20.	ug/kg	20. U			
Ð	etrachloroethene	5.0	ug/kg	5.0 U	++	+	
- 1	,1,2,2-Tetrachloroethane	5.0	ug/kg	5.0 U			
T	oluene	5.0	ug/kg	5.0 U			
CI	hlorobenzene	5.0	ug/kg	5.0 U			
E	thylbenzene	5.0	ug/kg	5.0 U		**	
	tyrene	5.0	ug/kg	5.0 U			
we X	ylenes (total)	5.0	ug/kg	5.0 U		-+	
Po	ercent Solids		x	80.2			

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8260:

GTEL Milford, NH

M6110437

Reissued Report

NEI/GTEL Client ID: 7094104115110 www Login Number:

Project ID (number): 7094104115110

M6110437

Project ID (name):

RFI UNIVERSITY OF MARYLAND

Method: EPA 8260

Matrix: Low Soil

NEI/GTEL Sample Number	M6110437-11				
Client ID	RP2-5	••			••
Date Sampled	11/21/96		••	•	
Date Analyzed	12/04/96	••			
Dilution Factor	1.00				

Reporting

Analyte Limit Units Concentration: Dry Weight

Notes: (continued)

"Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list may be modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected.

"J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination: The data user is warned to take appropriate action.

GTEL Client ID:

7094104115110

Login Number:

M6110437

Project ID (number): 7094104115110

Project ID (name):

RFI UNIVERSITY OF MARYLAND

Method: EPA 8260

Matrix: Aqueous

94	GTEL Sample Number	M6110437-01	M6110437-06	••	• •
	Client ID	FIELD BLANK	TRIP BLANK	••	. ••
44	Date Sampled	11/20/96	11/20/96	••	• •
	Date Analyzed	12/03/96	12/03/96	••	• •
	Dilution Factor	1.00	1.00	••	••

i i telo	R	eporting					
7.00 <b>9</b>	Analyte	Limit	Units	Conc	centration:	-	
	Dichlorodifluoromethane	10.	ug/L	10. U	10. U		
-/ <b>//////</b>	Chloromethane	10.	ug/L	10. U	10. U		
(catalog	Vinyl chloride	5.0	ug/L	5.0 U	5.0 U	<b></b>	
	Bromomethane	10.	ug/L	10. U	10. U		
C STATE .	Chloroethane	10.	ug/L	10. U	10. U		<b>#</b>
	Trichlorofluoromethane	5.0	ug/L	5.0 U	5.0 U	••	••
	1,1-Dichloroethene	5.0	ug/L	5,0 U	5.0 U		<b>**</b>
	Methylene chloride ~	5.0	ug/L	5.0 U	5.0 U		••
	trans-1,2-Dichloroethene	5.0	ug/L	5.0 U	5.0 U	<b></b>	<b>##</b>
	1,1-Dichloroethane	5.0	ug/L	5.0 U	5.0 U	••	
	2,2-Dichloropropane	5.0	ug/L	5.0 U	5.0 U	<b>4.</b>	
	cis-1,2-Dichloroethene	5.0	ug/L	5.0 U	5.0 U		
	Chloroform	5.0	ug/L	4.1 J	5.0 U		
	Bromochloromethane	5.0	ug/L	5.0 U	5.0 U		
	L.1.1-Trichloroethane	5.0	ug/L	5.0 U	5.0 U		44-94
	1,1-Dichloropropene	5.0	ug/L	5.0 U	5.0 U	••	
***	Carbon tetrachloride	5.0	ug/L	5,0 U	5.0 U		**
	Benzene	5.0	ug/L	5.0 U	5.0 U		••
	I,2-DichToroethane	5.0	ug/L	5.0 U	5.0 U	<b>6</b> -4	<del>6 - 1</del>
	Trichloroethene	5.0	ug/L	5.0 U	5.0 U	**	
	1.2-Dichloropropane	5.0	ug/L	5.0 U	5.0 U		
	Bromodichloromethane	5.0	ug/L	5.0 U	5.0 U		••
	01bromomethane	5.0	ug/L	5.0 U	5.0 U		6.6
	cis-1.3-Dichloropropene	5.0	ug/L	5.0 U	5.0 U		
	l'oluene	5.0	ug/L	5.0 U	5.0 U		**
	trans-1,3-Dichloropropene	5.0	ug/L	5.0 U	5.0 U		
	I.1.2-Trichloroethane	5.0	ug/L	5.0 U	5.0 U		6/19
	1,2-Dibromoethane	5.0	ug/L	5.0 U	5.0 U		••
	[etrach]oroethene	5.0	ug/L	5,0 U	5.0 U		10 At
	L.3-Dichloropropane	5.0	ug/L	5.0 U	5.0 U	••	••
	Pibromochloromethane	5.0	ug/L	5.0 U	5.0 U		No. op.
	Chlorobenzene	5.0	ug/L	5.0 U	5.0 U		••
	thylbenzene	5.0	ug/L	5.0 U	5.0 U	<b></b>	**
	l.1.1.2-Tetrachloroethane	5.0	ug/L	5.0 U	5.0 U	••	
	(ylenes (total)	5.0	ug/L	5.0 U	5.0 U	4.0	<b>4.</b>
	1,3-Dichlorobenzene	5.0	ug/L	5.0 U	5.0 U		••
	Styrene	5.0	ug/L	5.0 U	5.0 U		
	.4-Dichlorobenzene	5.0	ug/L	5.0 U	5.0 U		••
₩	Bromoform	5.0	ug/L	5.0 U	5.0 U		
	TEL Milford, NH					<u> </u>	

GTEL Milford, NH M6110437

H6110437-01

FIELD BLANK

H6110437-06

TRIP BLANK

5.0 U

5.0 U

5.0 U

GTEL Client ID:

7094104115110

Login Number:

M6110437

Project ID (number): 7094104115110

Project ID (name):

RFI UNIVERSITY OF MARYLAND

GTEL Sample Number

5.0

5.0

5.0

ug/L

ug/L

ug/L

Client ID

Method: EPA 8260

Matrix: Aqueous

rate	Date	Sampled nalyzed Factor	11/20/96 12/03/96 1.00	11/20/96 12/03/96 1.00	••	••
. Also	Reporting					
** Analyte	Limit	Units	Con	centration:		
1,2-Dichlorobenzene	5.0	ug/L	5.0 U	5.0 U		••
Isopropylbenzene	5.0	ug/L	5.0 U	5.0 U		e-=
1.1.2.2-Tetrachloroethane	5.0	ug/L	5.0 U	5.0 U		• •
Bromobenzene	5.0	ug/L	5.0 U	5.0 U		
■ 1.2.3-Trichloropropane	5.0	ug/L	5.0 U	5.0 U	••	••
n-Propylbenzene	5.0	ug/L	5.0 U	5.0 U		
2-Chlorotoluene	5.0	ug/L	5.0 U	5.0 U		••
1,3,5-Trimethylbenzene	5.0	ug/L	5.0 U	5.0 U		
4-Chlorotoluene	5.0	ug/L	5.0 U	5.0 U		
★ tert-Butylbenzene	5.0	ug/L	5.0 U	5.0 U		
1.2.4-Trimethylbenzene	5.0	ug/L	5.0 U	5.0 U		••
<pre>sec-Butylbenzene</pre>	5.0	ug/L	5.0 U	5.0 U		
<pre>p-Isopropyltoluene</pre>	5.0	ug/L	5.0 U	5.0 U	••	
n-Butylbenzene	5.0	ug/L	5.0 U	5.0 U	<del></del>	
a 1.2-Dibromo-3-chloropropan	e 5.0	ug/L	5.0 U.	5.0 U	••	••
1,2,4-Trichlorobenzene	5.0	ug/L	5.0 U	5.0 U		

#### Notes:

#### Dilution Factor:

Naphthalene

Hexachlorobutadiene

1.2.3-Trichlorobenzene

Dilution factor indicates the adjustments made for sample dilution.

#### EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. "U" indicates that the analyte was analyzed for but not detected. "J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination: The data user is warned to take appropriate action.

5.0 U

5.0 U

5.0 U

GTEL Milford, NH M6110437

M6110437-01

M6110437-06

NEI/GTEL Client ID: 7094104115110 Login Number: M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

NEI/GTEL Sample Number

Method: EPA 8260 Matrix: Aqueous

9	Date S	ient ID Sampled	FIELD BLANK 11/20/96	TRIP BLANK 11/20/96		••
ri .		nalyzed	12/03/96	12/03/96	••	••
	Dilution	Factor	1.00	1.00		
	Reporting					
Analyte	Limit	Units	Con	centration:		
Chloromethane	10.	ug/L	10. U	10. U		
Bromomethane	10.	ug/L	10. U	10. U		<del></del>
Vinyl chloride	10.	ug/L	10. U	10. U		
Chloroethane	10.	ug/L	10. U	10. U		
Methylene chloride	5.0	ug/L	5.0 U	5.0 U		
Acetone	20.	ug/L	10. J	20. U		
Carbon disulfide	5.0	ug/L	5.0 U	5.0 U		++
1.1-Dichloroethene	5.0	ug/L	5.0 U	5.0 U		
1,1-Dichloroethane	5.0	ug/L	5.0 U	5.0 U		
1.2-Dichloroethene (total)	5.0	ug/L	5.0 U	5.0 U		
Chloroform	5.0	ug/L	4.1 J	5.0 U		**
1,2-Dichloroethane	5.0	ug/L	5.0 U	5.0 U		
2-Butanone	20.	ug/L	20. U	20. U	<b></b> -	
1,1,1-Trichloroethane	5.0	ug/L	5.0 U	5.0 U		
Carbon tetrachloride	5.0	ug/L	5.0 U	5.0 U		
Bromodichloromethane	5.0	ug/L	5.0 U	5.0 U		
1,2-Dichloropropane	5.0	ug/L	5.0 U	5.0 U		-+
cis-1,3-Dichloropropene	5.0	ug/L	5.0 U	5.0 U		
Trichloroethene	5.0	ug/L	5.0 U	5.0 U		
Dibromochloromethane	5.0	ug/L	5.0 U	5.0 U		
1,1,2-Trichloroethane	5.0	ug/L	5.0 U	5.0 U	**	
Benzene	5.0	ug/L	5.0 U	5.0 U		
trans-1,3-Dichloropropene	5.0	ug/L	5,0 U	5.0 U		
Bromoform	5.0	ug/L	5.0 U	5.0 U		
4-Methyl-2-pentanone	20.	ug/L	20. U	20. U		**
2-Hexanone	20.	ug/L	20. U	20. U		
Tetrachloroethene	5.0	ug/L	5.0 U	5.0 U		
1,1,2,2-Tetrachloroethane	5.0	ug/L	5.0 U	5.0 U		
Toluene	5.0	ug/L	5.0 U	5.0 U	**	
Chlorobenzene	5.0	ug/L	5.0 U	5.0 U		
Ethylbenzene	5.0	ug/L	5.0 U	5.0 U		
Styrene	5.0	ug/L	5.0 U	5.0 U		
' Xylenes (total)	5.0	ug/L	5.0 U	5.0 U	7-	

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

#### EPA 8260:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Analyte list may be GTEL Milford, NH

M6110437

Reissued Report

NEI/GTEL Client ID: 7094104115110 Login Number: M6110437

Project ID (number): 7094104115110

Method: EPA 8260 Matrix: Aqueous Project ID (name): RFI UNIVERSITY OF MARYLAND

NEI/GTEL Sample Number	M6110437-01	M6110437-06			••
Client ID	FIELD BLANK	TRIP BLANK		•	••
Date Sampled	11/20/96	11/20/96			••
Date Analyzed	12/03/96	12/03/96	••		
Dilution Factor	1.00	1.00			••

à	Reporting			
Analyte	Limit	Units	Concentration:	
Notes (sentimed)				

Notes: (continued)

modified to include additional compounds. "U" indicates that the analyte was analyzed for but not detected.

<sup>&</sup>quot;J" indicates the presence of a compound that meets the mass spectral identification criteria, but the result is less than the reporting limit. The concentration of analytes flagged with a "J" is estimated. "B" indicates the analyte is found in the associated blank as well as the sample. It indicates possible blank contamination: The data user is warned to take appropriate action.

## **HERBICIDES**

### CHLORINATED PHENOXY HERBICIDES ANALYSIS DATA SHEET

**SAMPLE MATRIX: SOIL** 

CONC. LEVEL: LOW

EXTRACTION DATE: 11/29/96

ANALYSIS DATE: 12/05/96

SAMPLE ID: RP3-4

LAB SAMPLE ID :2992701

DIL FACTOR: 1.00

% MOISTURE :26

INITIAL VOL. (g):50.01

UG/KG

MPD#	CAS Number	HERBICIDE COMPOUND	(DRY BASIS	S)
1	94-75-7	2,4-D	68	U
2	93-72-1	2,4,5-TP (Silvex)	6.8	U_
3	93-76-5	2,4,5-T	6.8	U
4	94-82-6	2,4-DB	70	U
5	75-99-0	Dalapon	170	U
6	1918-00-9	Dicamba	6.8	U
7	88-85-7	Dinoseb	32	U
8	120-36-5	2,4-DP (Dichloroprop)	68	U
9	94-74-6	MCPA	27000	U
10	93-65-2	МСРР	27000	U

### CHLORINATED PHENOXY HERBICIDES ANALYSIS DATA SHEET

SAMPLE MATRIX: SOIL

SAMPLE ID: RP3-5

CONC. LEVEL: LOW

LAB SAMPLE ID :2992702

EXTRACTION DATE: 11/29/96

DIL FACTOR :1.00

ANALYSIS DATE: 12/05/96

% MOISTURE :28

INITIAL VOL. (g):50

UG/KG

CMPD# CAS Number

HERBICIDE COMPOUND

(DRY BASIS)

- 1	94-75-7	2,4-D	69	U
2	93-72-1	2,4,5-TP (Silvex)	6.9	U
3	93-76-5	2,4,5-T	6.9	U
4	94-82-6	2,4-DB	70	U
5	75-99-0	Dalapon	170	<u> </u>
6	1918-00-9	Dicamba	6.9	U
7	88-85-7	Dinoseb	33	U
8	120-36-5	2,4-DP (Dichloroprop)	69	U_
9	94-74-6	MCPA	28000	U
10	93-65-2	MCPP	28000	U
		·		

### CHLORINATED PHENOXY HERBICIDES ANALYSIS DATA SHEET

SAMPLE MATRIX: SOIL

SAMPLE ID: RP-3-6

CONC. LEVEL: LOW

LAB SAMPLE ID : 2992703 **DIL FACTOR: 1.00** 

EXTRACTION DATE: 11/29/96

% MOISTURE: 20

ANALYSIS DATE: 12/05/96

INITIAL VOL. (g):50.02

CMPD# CAS Number

HERBICIDE COMPOUND

(DRY BASIS)

UG/KG

٦r	94-75-7	2,4-D	62	11
2	93-72-1	2,4-D 2,4,5-TP (Silvex)	6.2	- 11
3	93-76-5	2,4,5-TP (Silvex)	6.2	11
4	94-82-6	2,4-DB	60	Ü
5	75-99-0	Dalapon	150	U
6	1918-00-9	Dicamba	6.2	U
7	88-85-7	Dinoseb	30	U
8	120-36-5	2,4-DP (Dichloroprop)	62	U
9	94-74-6	MCPA	25000	U
10	93-65-2	MCPP	25000	U
L				

### CHLORINATED PHENOXY HERBICIDES ANALYSIS DATA SHEET

SAMPLE MATRIX: SOIL

CONC. LEVEL: LOW

EXTRACTION DATE: 11/29/96

ANALYSIS DATE: 12/05/96

SAMPLE ID: RP3-7

LAB SAMPLE ID 2992704

**DIL FACTOR: 1.00** 

% MOISTURE :30

INITIAL VOL. (g):50.02

UG/KG

CMPD# CAS Number

HERBICIDE COMPOUND

(DRY BASIS)

1	94-75-7	2,4-D	71	U
2	93-72-1	2,4,5-TP (Silvex)	7.1	U
3	93-76-5	2,4,5-T	7.1	U
4	94-82-6	2,4-DB	70	U
5	75-99-0	Dalapon	180	U
6	1918-00-9	Dicamba	7.1	U
7	88-85-7	Dinoseb	34	U
8	120-36-5	2,4-DP (Dichloroprop)	71	U
9	94-74-6	MCPA	29000	U
10	93-65-2	MCPP	29000	U

### **SEMIVOLATILES**

ANALYTICAL RESULTS

GTEL Client ID: 7094104115110

44 Login Number: M6110437

Project ID (Number): 7094104115110

Project ID (Name): RFI UNIVERSITY OF MARYLAND

EPA 8270B	GTEL Sample Number	M6110437-01	
Semivolatile Organics	Client ID	FIELD BLANK	
Matrix: Aqueous	Date Sampled	11/20/96	
	Date Prepared	11/26/96	
	Date Analyzed	12/03/96	
	Adjustment Multiplier	1,00	
	Reporting		
Analyte	Limit Units		
Phenoi	10 ug/L	10 U	
bis(2-Chloroethyl) ether	10 ug/L	10 0	
Z-Chlorophenoi	10 ug/L	10 U	
1,3-Dichlorobenzene	10 ug/L	10 U	
1,4-Dichlorobenzene	10 ug/L	\$2.5.5.5.5.5.6.6.6.5.5.5.5.6.6.6.6.6.6.6.	
Benzyl alcohol	20 ug/L	20 U	
AND THE TAXABLE AND THE TOTAL PROPERTY OF TO	· · · · · · · · · · · · · · · · · · ·	******************************	
1,2-Dichlorobenzene			
2-Methylphenol	10 ug/L	10 U	
bls(2-Chloroisopropyl) ether	•	10 5	
4-Methylphenol	10 ug/L	10 U	
N-Ritrosodi*n+propylamine	10 ug/L	10 U	
Hexachloroethane	10 ug/L	10 σ	
Mitrobenzene	10 ug/L	ט 10	
Isophorone	10 ug/L	10 U	
2-Mitrophenol	10 ug/L	10 0	
2,4-Dimethylphenol	10 ug/L	10 U	
Benzoic acid	50 ug/L	50 U	
bis(2-Chloroethoxy)methane	10 ug/L	10 U	
2, 4-Dichlorophenol	10 ug/L	10 U	
1,2,4-Trichlorobenzene	10 ug/L	10 U	
Naphthalene	10 ug/L	10 0	
4-Chloroaniline	20 ug/L	20 U	
Hexachlorobutadiene		10 0	
	•		
4-Chloro-3-methylphenol		20 U	
2-Methylnaphthalene	10 <del>ug/</del> L	10 U	
Hexachlorocyclopentadiene	10 ug/L	10 U	
2,4,6-Trichlorophenol	10 ug/L	10 U	
2,4,5-Trichlorophenol	10 ug/L	10 U	
2-Chloronaphthælene	10 mg/L	10 U	
2-Nitroaniline	50 ug/L	50 U	
Dimethyl phthalate	10 ug/L	10 U	
Acenaphthylene	10 ug/L	10 U	
2,6-Dinitrotoluene	10 <del>19</del> /L	ט 20	
3-Nitroaniline	50 ug/L	50 U	
Acenaphthene	10 ug/L	10 U	
2,4-Dinitrophenol	50 ug/L	50 U	
4-Ritrophenol		50 U	
Dibenzofuran	10 ug/L	10 σ	
2,4-Dinitrotoluene	10 ug/L	10 U	
Diethyl phthalate	10 ug/L	10 σ	
4-Chiorophenyl phenyl ether	10 ug/L	10 0	
Fluorene	10 ug/L	10 U	
4-Mitroaniline	50 ug/L	50 U	
4,6-Dinitro-2-mathylphenol	50 ug/L	50 U	
N-Nitrosodiphenylamine	10 ug/L	10 0	
4-Bromophenyl phenyl ether	10 ug/L	10 U	
Hexachlorobenzene	10 ug/L	10 U	

7094104115110

ANALYTICAL RESULTS

Login Number:

M6110437

Project ID (Number): 7094104115110

Project ID (Name): RFI UNIVERSITY OF MARYLAND

EPA 8270B	GTEL Sample N	<u>lumber</u>	M6110437-01	
Semivolatile Organics	Clie	ent ID	FIELD BLANK	
Matrix: Aqueous	Date Sa	umpled	11/20/96	
	Date Pre	pared	11/26/96	
	Date Ana	lyzed	12/03/96	
	Adjustment Multi	plier	1.00	
	Reporting			
Analyte	Limit	Units		
Pentachlorophenol	50	ug/L	50 U	
Phenanthrene	10	ug/L	10 U	
Anthracen <del>e</del>	10	ug/L	10 0	
Di-n-butyl phthalate	10	ug/L	10 U	
Fluoranthene	10	ug/L	10 U	
Pyrene	10	ug/L	10 U	
Butylbenzyl phthalate	10	ug/L	10 U	
3,3'-Dichlorobenzidine	20	ug/L	20 U	
Benzo(s)anthracene	10	ug/L	10 U	
Chrysene	10	ug/L	10 U	
bis(2-Ethylhexyl) phthalate	10	ug/L	10 U	
Di-n-octyl phthalate	10	ug/L	10 ΰ	
Benzo(b) fluoranthene	10	ug/L	10 U	
Benzo(k)fluoranthene	10	ug/L	10 ΰ	
Benzo(a) pyrena	10	119/L	10 U	
Indeno[1,2,3-cd]pyrene	10	ug/L	10 U	
Dibenzo(à,h)anthracene	10	ug/L	10 U	
Benzo(g,h,i)perylene	10	ug/L	10 U	
Carbazole	10	ug/L	10 U	

Login Number:

M6110437

Project ID (number): 7094104115110

Project ID (name): RFI UNIVERSITY OF MARYLAND

Date of Report: Dec 18, 1996

#### Footnotes and Comments

#### Symbol keys (may appear beside values)

- \* Indicates the analyte has been qualified in the narrative section of the report.
- d Indicates the analyte was reported from a dilution other than that indicated on the report page.
- B Organic Analyses Indicates the analyte is found in the associated blank as well as in the sample.
- B Inorganic Analyses Indicates an estimated value below the EPA Contract Required Detection Limit.
- G Indicates an estimated surrogate recovery due to dilutions.
- J Indicates an estimated value below the reporting limit.
- U Indicates the analyte was analyzed for but not detected.
- NA Matrix Spike Results Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
- NA Matrix Spike Duplicate RPD Results Not Applicable, since the Sample Conc. exceeded four times the Spike Added.
- NA Serial Dilution RPD Results Not Applicable, since the Sample Conc. was less than five times the CLP Contract Required Detection Limit.

#### Semi-Volatile Organics

#### Method: EPA 8270B

\*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods\*, SW-846, Third Edition including promulgated Update II. Analyte list may be modified to include additional compounds.

ANALYTICAL RESULTS

GTEL Client ID:

7094104115110

Login Number: Project ID (Number): 7094104115110

M6110437

Project ID (Name): RFI UNIVERSITY OF MARYLAND

EPA 8270B	GTEL Sample N	lumber	M6110437-07	M6110437-08	M6110437-09	M6110437-10
Semivolatile Organics	Clie	ent ID	RP1-4	POND 1 DUPLICATE	RP1-5	RP2-4
Matrix: Solids	Date Sa	ampled	11/20/96	11/20/96	11/21/96	11/21/96
	Date Pre	epared	12/03/96	12/03/96	12/03/96	12/03/96
	Date Ana	alyzed	12/05/96	12/05/96	12/05/96	12/05/96
	Adjustment Multi	lplier	1.00	1.00	1.00	1.00
	Percent S	Solids	55.0	51.9	62.4	72.9
	Reporting					
Analyte	Limit	Units	Concent	ration: Dry Weight		
PhenoL	330	ug/kg	330 U	330 U	330 U	330 U
bis(2-Chloroethyl) ether	330	ug/kg	330 U	330 U	330 σ	330 U
2-Chlorophenol	330	ug/kg	330 U	330 Т	330 U	330 U
1,3-Dichlorobenzene	330	ug/kg	330 U	330 U	330 U	330 U
l,4-Dichlorobenzene	330	ug/kg	330 U	330 B	930 U	330 U
Benzyl alcohol	660	ug/kg	660 Ū	660 U	660 U	660 U
1,2-Dichlorobenz <del>ena</del>	330	ug/kg	330 U	330 Ф	330 U	330 U
2-Methylphenol	330	ug/kg	330 U	330 U	330 U	330 U
bis(2-Chloroisopropyl) ether	330	ug/kg	330 U	330 T	330 U	330 U
4-Methylphenol	330	ug/kg	330 U	330 U	330 U	330 U
M-Nitrosodi-n-propylamine	330	ug/kg	330 U	330 U	330 U	330 U
<b>Hexachloroethane</b>	330	ug/kg	330 U	330 U	330 U	. 330 ū
Mitrobenzene	330	ug/kg	330 U	330 T	330 U	330 U
Isophorone	330	ug/kg	330 U	330 U	330 U	330 U
2-Ritrophenol	330	ug/kg	330 U	330 U	330 U	33 <b>0</b> U
2,4-Dimethylphenol	330	ug/kg	330 U	330 U	330 U	330 U
Benzoic acid	1700	ug/kg	1700 U	1700 B	1700 U	1700 U
bis(2-Chloroethoxy)methane	330	ug/kg	330 U	330 U	330 U	330 U
Z,4-Dichlorophenol	330	ug/kg	330 ប	330 U	330 U	330 U
1,2,4-Trichlorobenzene	330	ug/kg	330 U	330 Ū	330 U	330 U
Naphthalene	330	ug/kg	330 ប	330 U	330 U	330 8
4-Chloroaniline	660	ug/kg	660 U	660 U	660 U	660 U
Hexachlorobutadiene	330	ug/kg	330.0	330 U	330 U	330 U
4-Chloro-3-methylphenol	660	ug/kg	660 U	660 U	660 U	660 U
2-Hethylnaphthalene	330	eg/kg	330 U	330 B	330 U	330 ប
Hexachlorocyclopentadiene	330	ug/kg	330 U	330 U	330 U	330 U
2, 4, 6-Trichlorophenol	330	ug/kg	330 U	330 B	330 V	330 ೮
2,4,5-Trichlorophenol	330	ug/kg	330 U	<b>330 ℧</b>	330 U	330 U
2-Chloronaphthalene	330	ug/kg	330 ป	330 0	330 U	330 U
2-Nitroaniline	1700	ug/kg	1700 U	1700 U	1700 U	1700 U
Dimethyl phthalate	330	ug/kg	330 U	330 ₽	ט 330	330 U
Acenaphthylene	330	ug/kg	330 U	330 U	330 U	330 U
2,6-Dinitrotoluene	330	ug/kg	330 U	330 U	330 U	330 U
3-Nitroaniline	1700	ug/kg	1700 U	1700 U	1700 U	1700 U
Acenaphthene	330	ug/kg	330 U	330 8	160 J	330 U
2,4-Dinitrophenol	1700	ug/kg	1700 U	1700 U	1700 U	1700 U
-Hitrophenol	1700	ug/kg	1700 U	1700 U	1700 U	1700 G
Dibenzofuran	330	ug/kg	330 U	330 U	84 J	330 U
7,4-Dinitrotoluene	330	ug/kg	330 U	330 0	330 U	330 U
Diethyl phthalate	330	ug/kg	330 U	330 σ	330 U	330 U
I-Chlorophenyl phenyl sther	*******************************	ug/kg	330 U	330 0	ט 330	330 U
Fluorene	330	ug/kg	330 U	330 Ф	130 J	330 U
-Mitrosniline	1700	000000000000000000000000000000000000000	1700 U		1700 U	1700 U
				1700 U	1700 U	1700 0
(,6-Dinitro-2-methylphenol	1/00	ug/ka	1/00 0			
4,6-Dinitro-2-methylphenol V-Nitrosodiphenylamina	1700 <b>33</b> 0	ug/kg 	1700 U 330 U	330 B	330 U	330 U

7094104115110

ANALYTICAL RESULTS

Login Number:

M6110437

Project ID (Number): 7094104115110

Project ID (Name): RFI UNIVERSITY OF MARYLAND

EPA 8270B	GTEL Sample Number		M6110437-07	M6110437-08	M6110437-09	M6110437-10
Semivolatile Organics	Client ID		RP1-4	POND 1 DUPLICATE	RP1-5	RP2-
Matrix: Solids	Date Sa	umpled	11/20/96	11/20/96	11/21/96	11/21/9
	Date Pre	pared	12/03/96	12/03/96	12/03/96	12/03/9
	Date Ana	lyzed	12/05/96	12/05/96	12/05/96	12/05/9
	Adjustment Multi	plier	1.00	1.00	1.00	1.0
	Percent S	olids	55.0	51.9	62.4	72.
	Reporting					
Analyte	Limit	Units	Concent	ation: Dry Weight		inin lanin market in the tea
Hexachlorobenzene	330	ug/kg	330 U	330 ℧	330 U	330 ប
Pentachlorophenol	1700	ug/kg	1700 ປ	1700 U	1700 U	1700 U
Phenanthrene	330	<del>u</del> g/kg	330 U	330 0	300 J	87 J
Anthracene	330	ug/kg	330 U	330 ℧	330 Ū	330 Ū
Di-n-butyl phthalate	330	ug/kg	330 ជ	330 U	330 U	330 0
Fluoranthene	330	ug/kg	330 U	330 U	170 J	160 J
Pyrene	330	ug/kg	330 U	330 T	130 J	150 J
Butylbenzyl phthalate	330	ug/kg	330 U	330 U	330 Т	330 U
3,3'-Dichlorobenzidine		ug/kg		€60 Ū		
Benzo(a)anthracene	330	ug/kg	330 U	330 Т	330 U	80 J
Chrysene	330	ug/kg		330 0		
bis(2-Ethylhexyl) phthalate	330	ug/kg	330 U	330 U	330 U	330 U
Di-n-octyl phthalate	330	ug/kg	330 U	330 0		330 ប
Benzo(b)fluoranthene	330	ug/kg	330 Т	330 U	330 Т	88 J
Senzo(k) fluoranthene		ug/kg	330 U	330 U	330 U	
Benzo(a)pyrene	330	ug/kg	330 U	330 U	330 U	81 J
Indeno(1,2,3-cd)pyrene		ug/kg	330 U	330 0	330 U	
Dibenzo(a, h) anthracene	330	ug/kg	330 U	330 U	330 U	330 U
Benzo(g,h,i)perylana		ug/kg	330 U		330 U	
Carbazole	330	ug/kg	330 U	330 0	330 U	330 ਹ

EPA 8270B	GTEL Sample N	umber	M6110437-11	
Semivolatile Organics	Client ID		RP2-5	
Matrix: Solids	Date Sa	Date Sampled		
	Date Pre	pared	12/03/96	
	Date Ana	lyzed	12/05/96	
	Adjustment Multi	plier	1.00	
	Percent S	olids	80.2	
	Reporting			•
Analyte	Limit	Units	Concentra	tion: Dry Weight
Phenoi	330	ug/kg	330 U	
bis(2-Chlorosthyl) ether	330	ug/kg	330 П	
2-Chlorophenoi	330	119/kg	330 U	
1,3-Dichlorobenzene	330	ug/kg	330 U	,
1,4-Dichlorobenzene	330	ug/kg	330 U	
Benzyl alcohol	660	ug/kg	660 U	
1,2-Dichlorobenzene	330	ug/kg	330 U	
2-Methylphenol	330	ug/kg	330 U	
bis(2-Chloroisopropyl) ether	330	ug/kg	330 U	
4-Methylphenol	330	ug/kg	330 U	
N-Nitrosodi-n-propylamine	330	ug/kg	330 U	
Hexachloroethane	330	ug/kg	330 U	
Nitrobenzene	330	ug/kg	330 U	
Isophorone	330	ug/kg	330 U	

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ANALYTICAL RESULTS

Login Number:

M6110437

Project ID (Number): 7094104115110

Project ID (Name): RFI UNIVERSITY OF MARYLAND

EPA 8270B	GTEL Sample N		M6110437-11	
Semivolatile Organics		nt ID	RP2-5	
Matrix: Solids	Date Sampled		11/21/96	
	Date Pre		12/03/96	
	Date Ana	-	12/05/96	
	Adjustment Multip		1.00	
	Percent S	olids	80.2	
	Reporting			
Analyte 2-Mitrophenol	Limit 330	Units	330 U	ion: Dry Weight
2-Mitrophendi 2,4-Dimethylphenol	330		330 U	
Benzoic acid		ug/kg ug/kg	x 2000 - 2000 000 000 000 000 000 000 000	
bis(2-Chloroethoxy)methane	330	ug/kg	330 U	***************************************
2,4-Dichlorophenol		ug/kg	*******************************	
1,2,4-Trichlorobenzene	330	ug/kg	330 U	
Naphthalene	330	ug/kg	330 U	
4-Chloroaniline	660	ug/kg	660 U	
Hexachlorobutadiene		ug/kg 	***************************************	
4-Chloro-3-methylphenol	660	ng/kg	660 U	
Z-Hethylnaphthalene		ug/kg	330 U	
Hexachlorocyclopentadiene	330	ug/kg	330 U	
Z, 4, 6-Trichlorophenol	330	ug/kg	330 U	
2,4,5-Trichlorophenol	330	ug/kg	330 U	
2-Chloronaphthalene	330	bg/kg	330 U	
2-Nitroaniline	1700	ug/kg	1700 U	
Dimethyl phthalate	·······	******	330 U	
Acenaphthylene	330	ug/kg	330 U	
2,6-Dinitrotoluene	330		330 U	
3-Nitroaniline	1700	ug/kg	1700 U	
Acenaphthene	330	ug/kg	330 U	
2,4-Dinitrophenol	1700	ug/kg	1700 U	
(-Ritrophenol	1700	eg/kg	1700 U	
Dibenzofuran	330	ug/kg	330 U	
2,4-Dinitrotoluene	330	bg/kg	330 U	
Diethyl phthalate	330	ug/kg	330 U	
4-Chlorophenyl phenyl ether	330	ug/kg	330 U *	
Fluorene	330	ug/kg	330 U	
(-Nitrosnilin=	1700	ng/kg	1700 U	
4,6-Dinitro-2-methylphenol	1700	ug/kg	1700 U	
W-Nitrosodiphenylamine	330	ug/kg	330 🛮	
4-Bromophenyl phenyl ether	330	ug/kg	330 U	
Hexachlorobenzene	330	ug/kg	330 U	
Pentachlorophenol	1700	ug/kg	1700 U	
Phenanthrene	330	ug/kg	330 U	
Anthracene	330	ug/kg	330 U	
Di-n-butyl phthalate	330	ug/kg	330 ປ	
Fluoranthene	330	ug/kg	330 U	
Pyrene	330	bg/kg	330 U	
Sutylbenzyl phthalate	330	ug/kg	330 U	:
,3'.Dichlorobenzidine	660	ug/kg	660 U	
Senzo[a]anthracene	330	ug/kg	330 U	
Thrysene	330	ug/kg	330 U	
ois(2-Ethylhexyl) phthalate	330	ug/kg	330 U	
Di-n-octyl phthalate	330	ug/kg	330 U	
Benzo(b) fluoranthene	330	ug/kg	330 U	

7094104115110

ANALYTICAL RESULTS

Login Number:

M6110437

Project ID (Number): 7094104115110

Project ID (Name): RFI UNIVERSITY OF MARYLAND

EPA 8270B	GTEL Sample Number	M6110437-11	
Semivolatile Organics	Client ID	RP2-5	
Matrix: Solids	Date Sampled	11/21/96	
	Date Prepared	12/03/96	
	Date Analyzed	12/05/96	
	Adjustment Multiplier	1.00	
	Percent Solids	80.2	
	Reporting		

	Repo	rting		
•	Analyte	Limit	Units	Concentration: Dry Weight
į	Benzo(k) fluoranthene	330	ug/kg	330 · U
	Benzo(a)pyrene Indeno(1,2;3-cd)pyrene	330 330	ug/kg ug/kg	330 U
,	Dibenzo[a,h]anthracene Benzo[g,h,i]perylene	330 330	ug/kg ug/kg	330 U
	Carbazole	330	ug/kg	330 U

# APPENDIX D

## **NEI/GTEL CORRESPONDENCE**

Buchart Horn, Inc.
The Industrial Plaza of York445 West Philadelphia Street
P.O. Box 15040
York, PA 17405-7040

Attention: Randy Deardorf

Subject: Herbicide Analysis for the University of Maryland Project,

Phase I, RFI

Dear Mr. Deardorf:

This letter is provided as a follow-up in regard to our conversation concerning the fact that Nytest Environmental, Inc. did not analyze for diallate, requested as a herbicide, by method 8150, for the referenced project.

On November 11, 1996, I received paperwork from you detailing the final analytical requirements and sample numbers for the referenced project. Diallate was listed with the herbicide list and I mistakenly interpreted this compound to be another name for 2,4-D and therefore did not request the laboratory to run for it. Once you received the data, it was discovered this compound was not reported and it is out of holding time at this time.

Once the error was identified, I further researched this compound and I hope your project was not significantly impacted in a negative way. Here is the information, I have found concerning diallate:

- . It is a compound that would require a separate run and some research to accommodate.
- . It is not a herbicide that can be run by 8150.
- Our chemical directory lists diallate as a pesticide, carbamate, as follows: S-(2-3-dichloroallyl)N-N'-diisopropyl thiocarbamate, Avadex, CAS#: 2303-16-4. This compound is a different acid group than compounds associated with method 8150.
- . I contacted Core Laboratories in Indiana, one of the few labs who analyze for carbamates in drinking water by method 531.1 but they do not run diallate by this method or any other method.

box 1518 - 60 seaview blvd., port washington, ny 11050 - (516) 625-5500 fax (516) 625-1274

# nytest environmental...

- . I contacted Lancaster Laboratories who analyze s for several more of the drinking water methods for the Synthetic Organic Compounds which have more extensive pesticide, herbicide and semivolatile lists. These methods are not always applicable for soils and Lancaster has not run for diallate nor is it detected or listed as a compound in the following methods they do run: 505 (includes some pesticides, PCBs and semivolatiles), method 515.1 (includes some herbicides and pesticides), 525.1 (includes some pesticides and semivolatiles) and 531.1 (carbamates).
- Diallate is a carbamate which are usually run utilizing HPLC. Both of the referenced laboratories have HPLC capabilities but do not run for diallate.
- . Diallate is listed as a semivolatile (method 8270) on the Appendix IX list which is the list of parameters normally tested to determine leachate from landfills and is not always a routinely run list. Diallate is not a TCL or PP semivolatile and is not run at NEI/GTEL in New Hampshire. To determine if this laboratory could run this compound by 8270, I should have given the laboratory advance notice. This would have taken some research and development, and could have potentially not worked..
- Diallate is identified as a U listed waste, U-062, but I have been unable to identify any concentration constituent in waste which may mean there is no standard for this compound.
- One of our chemist found a reference that diallate may potentially be able to be run by method 8080/8081 which is routinely a pesticide/PCB method. Again this is a nonstandard compound for this method, would require research and development and may potentially not work.

I hope this letter provides some useful information. I regret that I overlooked this compound up front when perhaps NEI could have done the research and devlopment or we may have determined along with the EPA that this compound could be dropped from the requirements. Research and development and an additional method could have had a cost impact on the project. NEI in New York has run the Semivolatile Appendix IX list by Method 8270 which may be the approach to take if this compound must be run but we would need to order the standard.

NEI and I apologize for any inconvenience we may have caused you and your client. Please do not hesitate to call me at (609) 829-7390 if we may need to accommodate this project requirement or lend further assistance.

Sincerely.

Nytest Environmental Inc.

Account Executive

Unne W Anne W. Lee